

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
22 July 2004 (22.07.2004)

PCT

(10) International Publication Number  
**WO 2004/061011 A3**

(51) International Patent Classification<sup>7</sup>: C09C 1/36,  
1/24, 1/00, C04B 14/30, 18/02

GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,  
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG,  
MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT,  
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,  
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
PCT/US2003/041469

(22) International Filing Date:  
22 December 2003 (22.12.2003)

(84) Designated States (*regional*): ARIPO patent (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(30) Priority Data:  
60/436,795 26 December 2002 (26.12.2002) US

Published:  
— with international search report  
— with amended claims

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(88) Date of publication of the international search report:  
10 September 2004

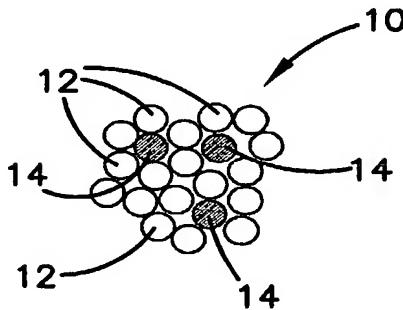
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Date of publication of the amended claims: 25 November 2004

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO,  
CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PIGMENT AGGLOMERATES, THEIR MANUFACTURE, AND USE



(57) Abstract: A pigment agglomerate and method of making the pigment agglomerate. The agglomerate is a collection of pigment particles and at least one carrier particle, the pigment particles and carrier particle held together by interparticle forces such as magnetic forces, electrostatic forces, van der Waal's forces, and other physical or chemical interparticle forces. A chemical surface treatment or other treatment may be applied to either or both of carrier particles and pigment particles in order to improve the interparticle forces therebetween. No binder, such as a polymeric binder or adhesive, is used to adhere or maintain the particles together forming the agglomerates.

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**AMENDED CLAIMS**

[received by the International Bureau on 17 September 2004 (17.09.04);  
original claims 1, 2, 4-13 amended, claim 14 cancelled]

1. A pigment agglomerate comprising:
  - (a) a plurality of pigment particles; and
  - (b) a plurality of silica fume particles held to the pigment particles by interparticle forces, wherein a weight ratio of the carrier particles to the pigment particles is about 0.5:10 to 3:10.
2. The pigment agglomerate according to claim 1, wherein the pigment particles are iron oxide.
3. The pigment agglomerate of claim 1, wherein the interparticle forces is at least one of magnetic forces, electrostatic forces, and van der Waal's forces.
4. A pigment agglomerate consisting essentially of:
  - (a) a plurality of pigment particles; and
  - (b) a plurality of silica fume particles.
5. The pigment agglomerate according to claim 4, wherein the pigment particles are iron oxide.
6. A pigment agglomerate consisting only of:
  - (a) a plurality of pigment particles; and
  - (b) a plurality of silica fume particles.
7. The pigment agglomerate according to claim 6, wherein the pigment particles are iron oxide.
8. A method of making a pigment agglomerate comprising:
  - (a) mixing a plurality of pigment particles with a plurality of silica fume particles, at a weight ratio of 0.5:10 to 3:10 silica fume particles to pigment particles, the mixing being done with a rolling motion.

9. The method of claim 8, wherein the mixing of a plurality of pigment particles with a plurality of silica fume particles comprises:

(a) mixing a plurality of iron oxide particles with the plurality of silica fume particles.

10. The method of claim 8, wherein the mixing of a plurality of pigment particles with a plurality of silica fume particles with a rolling motion comprises:

(a) mixing of a plurality of pigment particles with a plurality of silica fume particles with a rolling motion in a barrel mixer, a tumbler, or a ribbon mixer.

11. The method of claim 8, wherein the mixing of a plurality of pigment particles with a plurality of silica fume particles with a rolling motion comprises:

(a) mixing of a plurality of iron oxide particles with a plurality of silica fume particles with a rolling motion in a barrel mixer, a tumbler, or a ribbon mixer.

12. The method of claim 8, wherein the mixing of a plurality of pigment particles with a plurality of silica fume particles with a rolling motion comprises:

(a) mixing of a plurality of pigment particles with a plurality of silica fume particles with a rolling motion in a barrel spinning or tumbling about its longitudinal axis.

13. The method of claim 8, wherein the mixing of a plurality of pigment particles with a plurality of silica fume particles with a rolling motion comprises:

(a) mixing of a plurality of iron oxide particles with a plurality of silica fume particles with a rolling motion in a barrel spinning or tumbling about its longitudinal axis.